



Ilrban Conneil.

# JOINT REPORT

OF THE

# MEDICAL OFFICER OF HEALTH

AND

SANITARY INSPECTOR,

ON THE

Sanitary Condition of Leek,

For the year ending 1899.

Leok .\_

Charles Kirkham, Printer and Stationer, Derby Street.



Leck District



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# REPORT OF THE MEDICAL OFFICER OF HEALTH

#### FOR THE LEEK URBAN SANFTARY DISTRICT,

### 1899.

The year 1899 has been a fatal one for Leek—the deaths amounting to 323, 39 more than the average death-rate for the last 10 years.

Of this number 150 were males with a mean age at death of 39.7 years, and 173 females whose mean age at death was 36.5 years,—reversing the usual condition of things when the latter are generally older than the former. These figures show a death-rate according to the present estimated population of 21.1 to each 1000 of the living, but if we take away the deaths of 16 persons brought to the public Institutions of the town from other districts we shall find the correct mortality of the Leek Urban Sanitary District to be 20.2 to each 1000 of the living.

# These deaths occurred at the following ages:—

| Under 1 year    |       | <br>73         |
|-----------------|-------|----------------|
| Between 1 and 5 | years | <br>3 1        |
| ,, 5 and 25     | 1)    | <br>S          |
| ., 15 and 25    |       | <br>15         |
| ,, 25 and 65    | , ,   | <br>$l \cap l$ |
| Over 65 years   |       | <br>95         |

The Births registered in the year were 376, -61 below last year's return, and the smallest number recorded since 1888. These comprised 178 males and 198 females, with a birth-rate of 24.6 to 1000 of the living.

For information regarding infant mortality refer to table III of the Inspector's Report, with whose remarks I thoroughly agree and in connection with this subject I may mention that 27 st Ilborn children have been registered during the year.

In the Zymotic class of diseases, Measles holds first place, 14 out of 23 deaths being attributed thereto—this disease is not notified in the district,—all occurred in the first three months of the year and were the finish of the Epidemic prevalent at the end of 1898.

Nineteen cases of *Enteric Fever* were notified and 5 deaths resulted. In each case a most careful investigation was made to discover the source of infection. In several instances the disease was traced to eating mussels, and in others the mischief was contracted outside the town. In no instance was any Sanitary defect discovered on the premises, and the milk was free from suspicion. For further remarks under this head see Inspector's Report.

As so often mentioned in my Reports I can record no improvement in the class of local diseases especially in relation to those of Brain, Heart and Digestive Organs,—this year deaths under these sections are more numerous than ever.—the mortality from diseases of the Brain and Nervous System were 44,—the average for 10 years being 37, that from heart affections 44,—the average for 10 years being 28, that from diseases of digestive organs 41—the average for 10 years being 23.

As these diseases are chiefly the result of mistaken and injurious habits of life, we do not find that improved sanitation has much influence over them, although in many other classes this agency has been most effectual, as demonstrated by the fact that within the last 30 years the rate of mortality has been reduced 30 per cent, and the duration of life increased 30 per cent as compared with former periods.

As stated in my last year's report the habitual use of narcotics in Langesthetics has much to do with the large mortality in the above named maladies, and the returns published by the Registrar General distinctly show this; he says "that the male infant at birth has now an expectancy of three and three quarter years longer life than the male infant had at birth half a century ago, but before he reaches his majority more than \(\frac{3}{4}\) of this gain is dissipated. For 18\(\frac{3}{1}\) to 18\(\frac{3}{2}\) young men of 20 had an average expectancy of only four-fifths of a year longer life than a young man of the same age had in 18\(\frac{3}{2}\) to 18\(\frac{3}{2}\). This, bear in mind, in spite of all that Medical Science, all that Sanitary Science, all that increased leisure, all that improved dwellings and everything else have during the last 50 years effected in the way of lengthening the life of male adults.

The returns of the Commissioners of Inland Revenue show that on the whole the users of alcohol of the present day consume about 25 per cent per head more than did the alcohol-users of this country half a century ago. It would seem therefore that if the English people to-day do breathe less poison than their fathers and grandfathers did, they voluntarily swallow much more and the change is not very obviously a beneficial one.

Nothing else in this year's mortality returns seems to need special comment, and I append tables of causes of death and ages at death as usual.

As regards the general condition of health matters in Leek I can only repeat what I have previously said that our abundant supply of excellent water, our efficient scavenging, our regular inspection of streets and dwellings, our useful Isolation Hospital, and other sanitary appliances are in full operation, and details on these topics are thoroughly given in the Inspector's Report published jointly with this.

During the year I have sent Monthly Reports to the Sanitary Committee in which any question especially affecting the health of the town has been referred to, and when necessary suggestions submitted for abatement or improvement.

# J. I. RITCHIE,

Medical Officer of Health.

# CAUSES OF DEATH IN 1899.

|  | Јап.  | Feb.                      | Mar. | April                                   | May   | June                      | July       | Aug | Sept.      | Uct.                  | Nov        | Dec                  | Total  |
|--|-------|---------------------------|------|---|-------|---------------------------|------------|-----|------------|-----------------------|------------|----------------------|--|
| Measles Typhoid Fever Septic@mia Erysipelas Diphtheria       |       |                           | I    | • |       | <br>I<br>                 |            |     | • • •      | I                     |            | ī                    | 14<br>5<br>2<br>1                                    |
| Phthisis Tubercular Diseases Cancer Gout Syphilis Alcoholism | I     | 2                         |      | I                                       | I<br> |                           | <br>I<br>I | 3   | I<br>I<br> | 2<br>2<br>I<br>       | 4<br><br>2 | 3                    | 24<br>9<br>11<br>1<br>6                              |
| Premature Birth Old Age Debility, &c. Teething               | 8 5 2 | 8<br>3<br>1<br><br>6<br>2 | • •  | 1<br>1<br>                              |       | 2<br>2<br>3<br>3<br>2<br> | 3          | · · |            | 7<br>1<br>2<br>4<br>1 | I 4 2 2 I  | 7<br>7<br>2<br>3<br> | 44<br>50<br>44<br>41<br>5<br>2<br>8<br>31<br>14<br>3 |
| Sudden or Violent  |       |                           |      |   |       |                           |            |     | 2          | 1                     |            | I                    | 5  |
| Total  | 40    | ĄΙ                        | 29   | 28                                      | 27    | 24                        | 23         | 17  | 21         | 24                    | 20         | 29                   | 323  |

# AGES AT DEATH

| 18)8                                       | 0 1               | 71 | 23                                    | : | +5 | Total<br>under 5       | 5-10 | 10-15 | 1525    | 17                                 | 100                                     | 17<br>17<br>17<br>11      | 5,1-5,5  |                     | 73 35                                | 83 83   | Tetal  |
|--|-------------------|----|---------------------------------------|---|----|------------------------|------|-------|---------|------------------------------------|---|---------------------------|--|---------------------|--------------------------------------|---------|--|
| August<br>September<br>October<br>November | 0 8 5 7 5 0 3 0 4 | 2  | · · · · · · · · · · · · · · · · · · · |   |    | 3<br>9<br>3<br>10<br>6 | 1    | 1     |         | 1<br>2<br>2<br>1<br>.2<br>.2<br>.4 | 1 1 3 · · · · · · · · · · · · · · · · · | 1 2 2 5 3 3 3 · · · · · · | 5<br>5<br>5<br>1<br>3<br>2<br>2<br>2<br>2<br>5 | 6 5 7 4 5 4 2 3 3 4 | 4<br>3<br>5<br>1<br>4<br>2<br>1<br>1 | 1 2 2 1 | 10<br>41<br>20<br>28<br>27<br>24<br>23<br>17<br>21<br>24<br>20<br>20 |
| Total                                      | 7.5               | 22 | 3                                     | 5 | I  | 101                    | 7    | I     | 15<br>l | 17                                 | 10                                      | 27                        | 38   | 54                  | 37                                   | 4       | 323  |

## SANITARY INSPECTOR'S REPORT.

ACTION TAKEN FOR THE ABATEMENT OF NUISANCES, &C.

During the year ending December, 1899, the following cases of Nuisance and other matters complained of were dealt with, comprising:—

|                                |       |          |        | CA | SES. |
|--------------------------------|-------|----------|--------|----|------|
| Defective or want of private d | raina | age      |        |    | 78   |
| Slop-stone drains admitting so | ewer  | gas in h | ouse   |    |      |
|                                |       | [dis com | nected |    | 2    |
| Defective water closets        |       |          |        |    | 20   |
| Offensive privies              |       |          |        |    | 12   |
| Accumulation of offensive mat  | ter   |          |        |    | 15   |
| Offensive cesspools filled up  |       |          |        |    | 7    |
| Want of drain ventilation      |       |          |        |    | 2    |
| Dilapidated buildings          |       |          |        |    | 6    |
| Houses in a filthy condition   |       |          |        |    | 4    |
| Nuisances arising from over-c  | row   | ding     |        |    | 3    |
| Defective water spouting       |       |          |        |    | 5    |
| Want of proper water supply    |       |          |        |    | 8    |
|                                |       |          |        |    |      |

|   | CASES |
|---|-------|
| Swine kept within 60 feet of dwelling house             | 2     |
| Want of proper bed-room ventilation                     | 2     |
| Slaughter-house nuisance                                | 1     |
| Water course polluted by sewage                         | 0     |
| Poultry kept in dwelling-house contrary to Bye-laws     | 0     |
| Nuisance from fish frying                               | I     |
| Want of proper paving in private yards attached to      |       |
| [dwelling-houses  |       |
| Want of privy or water closet accommodation             | ï     |
| Want of proper receptacles for ashes                    | 25    |
| Nuisance arising from dense black smoke                 | 4     |
| 23 houses, 2 schools, 525 articles of infected bedding, |       |
| &c., were disinfected or destroyed.                     |       |
| or destroyed  |       |

A considerable number of nuisances were abated on the same being intimated to the persons responsible.

There are four notices of nuisances remaining on the books not yet complied with.

### Unsound Food.

I parcel of salmon, I rabbit, 28 eggs, and one carcase of a pig unfit for human food were destroyed.

## OFFENSIVE PRIVIES AND CESSPOOLS.

|   | CASES |
|---|-------|
| Offensive privies converted into water closets        | 9     |
| Offensive ashpits abolished, and portable receptacles |       |
| [provided in lieu thereof                             | 8     |

# REMOVAL OF ASHES AND NIGHT-SOIL.

The Scavenging Department removed 4,332 loads of house ashes and garbage, and 303 loads of night-soil.

## Common Lodging Houses.

There are 4 houses licensed under the Common Lodging-houses Acts, for the reception of 125 casual lodgers. The regulations approved by the Local Government Board for the management of these houses have been satisfactorily observed. No case of infectious disease occurred in these houses during the year.

#### SLAUGHTER-HOUSES.

There are 6 Slaughter-houses within the Town licensed subject to the Bye-laws authorised by the Local Government Board.

#### BAKEHOUSES AND WORKSHOPS.

The Bakelionses and Workshops within the limits of the Leek Improvement Act were inspected from time to time, and any suggestion made with a view to keeping the same in a satisfactory condition complied with by the occupier. There is now only one underground bakehouse within the town.

#### Petroleum Stores.

There are two licenses in force within the Town for the keeping or sale of Petroleum or other substances of a like nature.

#### GAS SUPPLY.

The purity of the Gas supplied to the Town was tested from time to time in the manner required by the 34th and 35th Vic., cap. 41. No impurity arising from the presence of sulphuretted hydrogen was shewn by the tests during the year.

## Notification of Infectious Disease.

During the year ending 1899, 53 cases of infectious diseases, consisting of 28 cases of scarlet fever; I of diphtheria: I9 of enteric fever; 3 of erysipelas; and I from puerperal fever were notified during the year, and the necessary steps promptly taken to prevent the spread of the disease. 32 of these cases were removed to the hospital, and the remainder treated at their homes. Notwithstanding the efforts of the department, it has been found exceedingly difficult in many cases to secure satisfactory isolation of cases of infectious disease at home. Thoughtless persons attending upon the patient mixing with others without taking proper precautions, and receiving visitors into the infected house, have been the means of spreading the infection to a large extent. In other instances, especially scarlet fever, cases have been

of so mild a character that is was not thought necessary to call in the doctor, and the case has gone unrecognised, the children being allowed to mix with others, and spread the infection. The source of milk supply is recorded in every case of infectious disease notified, and we have no evidence of any mischief resulting from this distribution.

#### ISOLATION HOSPITAL.

# Year ending December, 1899.

| Number of | patients | in Hospital, Jan. 1st, 1899  | <br>6   |
|-----------|----------|------------------------------|---------|
| Do.       | do.      | admitted during the year     | <br>*48 |
| Do.       | do.      | discharged do.               | <br>42  |
| Do.       |          | died do.                     | <br>4   |
| Do.       | do.      | in Hospital, Dec. 31st, 1899 | <br>8   |

\*Of this number 10 were from the Leek Rural District, and 6 from the Cheadle Rural District.

The average duration in Hospital of each patient discharged or died was 42.6 days.

#### INTERMENTS WITHIN THE TOWN.

During the year ending December, 1899, 5 interments took place in the Burial Ground attached to St. Edward's Church, and 5 in the ground attached to Mount Pleasant Wesleyan Chapel. The provisions of the Orders in Council relating thereto were duly observed.

Table 1.— Abstract of the Census Returns of 1851, 1861, 1871, 1881 and 1891, within the Limits of the Leek Improvement Act.

| Census                               | Area in                              | Н                                    | OUSE                          | S.                        | Р                                    | ERSO                                 | NS.                                      |
|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------------|---------------------------|--------------------------------------|--------------------------------------|--|
| Year                                 | Statute<br>Acres                     | In-<br>habited                       | Unin-<br>habited              |                           | Males                                | Fe-<br>males                         | TOTAL                                    |
| 1851<br>1861<br>1871<br>1881<br>1891 | 1460<br>1460<br>1460<br>1460<br>1460 | 1791<br>2228<br>2386<br>2726<br>3022 | 39<br>101<br>88<br>136<br>169 | 22<br>27<br>2<br>18<br>24 | 4315<br>4086<br>5087<br>5874<br>6420 | 4781<br>5488<br>6244<br>6991<br>7708 | 9056<br>10174<br>11331<br>12865<br>14128 |

TABLE 2.—POPULATION, BIRTHS AND DEATHS.

| 37.80           | 36.5               | 30.7           | 21.1                         | 246   | *323   | 376             | 15242              | 1899             |
|-----------------|--------------------|----------------|------------------------------|---|--------|-----------------|--------------------|------------------|
| 36.0            | 37.4               | 34'4           | 17.6                         | 28.8  | 267    | 437             | 15174              | 8681             |
| 39'3            | 40.6               | 38.0           | 19.2                         | 27.7  | 289    | 418             | 15037              | 1897             |
| 36.4            | 36.0               | 36.7           | 17.2                         | 27.3  | 257    | 408             | 14920              | 1896             |
| 34.8            | 36.5               | 33.9           | 20.0                         | 30.3  | 295    | 447             | 14746              | 1895             |
| 34.9            | 36.8               | 33.0           | 17.1                         | 29.4  | 250    | 429             | 14573              | 1894             |
| 38.6            | 39.8               | 36.9           | 20.2                         | 29.5  | 292    | 425             | 14406              | 1893             |
| 36.7            | 38.7               | 33'9           | 22.5                         | 29'I  | 322    | 417             | 14289              | 1892             |
| 37.8            | 38.6               | 36.9           | 18.2                         | 28.7  | 257    | 406             | 14154              | 1891             |
| 34 3            | 35.9               | 32.7           | 19.8                         | 30.1  | 2668   | 4146            | 13496              | 10 years 1881-90 |
| 31.2            | 32.3               | 30.8           | 22.6                         | 34.4  | 2734   | 4167            | 12098              | 10 years 1871-80 |
| 32.0            | 34.7               | 29'I           | 23.6                         | 32.7  | 2540   | 3516            | 10752              | 10 years 1861-70 |
| 1500rs.<br>24.8 | Froms. 25'9        | Years.<br>23.5 | 29.3                         | 35.7  | 2819   | 3440            | 9635               | 10 years 1851-60 |
| l'ersons        | bemales            | Males          | Deaths                       | Births  | Deaths | Births          |                    |                  |
| )eath           | Mean Age at Death. | Moa            | Annual or of Deaths to ving. | Average Annual Number of Births and Deaths to |        | Total number of | Mean<br>Population | Periods.         |

Excluding the 16 Deaths in Public Institutions in the fown of persons brought there from other Districts, the corrected annual rate of mortality in the Urban District of Leek for the year ending December, 1899, is 20'2 to 1,000 living. Our estimated population in the middle of the year 1899, is based upon the date of the last decade, which will probably prove to be under stated.

It will be seen by the foregoing No. 2 Abstract Table that during the last 39 years, the rate of mortality compared with that of the 10 years 1851-60 has been reduced 30 per cent., and the duration of life increased 30 per cent., which is equivalent to a reduction of 30 per cent. in the rate of sickness. Gradually the fact is being more fully recognised that in proportion as health is protected, and the duration of life enhanced, the wealth of the community is increased.

# TABLE 3.—INFANT MORTALITY.

Table showing the number of Births; the number of Deaths under one year; and the rate of mortality to 1,000 births, within the limits of the Leek Improvement Act, during various periods of the 49 years ending 1899.

|                  | Num    | ber of                    | Rate of                    |
|------------------|--------|---------------------------|----------------------------|
| Periods.         | Births | Deaths<br>under 1<br>year | Mor-<br>tality to<br>1000. |
| 10 years 1851-60 | 3440   | 646                       | 187 8                      |
| 10 years 1861-70 | 3516   | 573                       | 162.0                      |
| 10 years 1871-80 | 4167   | 670                       | 160.4                      |
| 10 years 1881-90 | 4146   | 585                       | 141.1                      |
| Year 1891        | 406    | 15                        | 125.6                      |
| ,, 1892          | 417    | 65                        | 155.8                      |
| ,, 1893          | 425    | 59                        | 1388                       |
| ,, 1894          | 429    | 71                        | 166.3                      |
| 1895             | 447    | 81                        | 181.5                      |
| ,, 1896          | 408    | 47                        | 115.5                      |
| ,, 1897          | 418    | 54                        | 129 2                      |
| 1. 1898          | 437    | 59                        | 135.0                      |
| ,, 1899          | 376    | 73                        | 1968                       |

There is no doubt but that the objectionable system of the employment of mothers of infants from their homes is, to a large extent, responsible for the loss of infant life. Experience shows that infant mortality tends to rise when the staple trade is good, and falls when it is bad.

## TABLE 4.

Percentage of Illegitimate Births in Leck during each of the under-mentioned periods of the 49 years ending 1899.

| Pe | eriods o | f Years. | Fercentage<br>of Illegitueate<br>Births. |
|----|----------|----------|--|
| 10 | years    | 1851-60  | 9.7                                      |
| IO | years    | 1801-70  | 8.8                                      |
| 10 | vears    | 1871-80  | 8:5                                      |
| IO | vears    | 1581-90  | 6.8                                      |
|    | Year     | 1891     | 5'2                                      |
|    | 11       | 1892     | 4.8                                      |
|    | 1.1      | 1893     | 6.8                                      |
|    | 1)       | 1894     | 6.3                                      |
|    | 1.1      | 1895     | 5 6                                      |
|    | 7.9      | 1896     | 4.6                                      |
|    | 1.1      | 1897     | 5.0                                      |
|    | 1 1      | ISG8     | 5.9                                      |
|    | 1.7      | 1899     | 6.3                                      |

HOUSING OF THE WORKING CLASSES' ACT, 1890.

During the year 1899, it has not been necessary to resort to the provisions of this Act.

Canal Boats Acts, 1877 and 1884,

During the year ending Dec. 1899,76 Canal Boatswere inspected within the Urban Sanitary District of Leek. With 2 exceptions, the condition of the Boats and their occupants, as regards the several matters dealt with in the Acts and Regulations, were satisfactory. No proceedings were taken beyond cautioning the persons concerned.

Dairies, Cow-Sheds & Milk-Shops Orders, 1885.

There are 43 persons registered pursuant to the above mentioned Orders within the Urban Sanitary District of Leek. All registered premises were inspected half-yearly. The Regulations of the Local Authority made in that behalf, which came into force on the first day of August, 1891, are being enforced. There are 212 milch cows kept within the district.

#### SANITARY CONDITION OF SCHOOLS.

During the year considerable sums have been expended by managers of several of our Elementary Schools in increasing the accommodation, and materially improving their Sanitary condition. The total number of scholars on the register at the end of December, 1899, was 2,912, and the average per centage of attendance during that month was 81.3.

SPECIAL REPORT, 9th NOVEMBER, 1898.

In compliance with the request of the Sanitary Committee, I herewith subjoin a Table showing the average annual death-rate from cancer to 10,000 living within the Urban Sanitary District of Leek during the 47 years ending 1897.

| Period of<br>Years. | Mean<br>Population. | Number of<br>Deaths<br>from Cancer. | Average<br>annual number<br>of Deaths to<br>10,000 living. |
|---------------------|---------------------|-------------------------------------|--|
| 1851-60             | 9635                | 25                                  | 2·5  |
| 1861- <b>7</b> 0    | 10752               | 39                                  | 3·6  |
| 1871-80             | 12098               | 77                                  | 6·4  |
| 1881-90             | 13496               | 83                                  | 6·2  |
| 1891-7              | 14589               | 80                                  | 7·8  |

During the 10 years ending 1860, the average annual number of deaths from cancer to 10,000 living in England and Wales was 3.2 and in 1893 it was 7.1 to 10,000 living.

The apparent mercase of cancer 4- becomes, for to a large extent by the fact that after the issue of the revised addition of the official nemenclature of disease, all malignant growths have been returned under the head of cancer. During each of the two years 1898-9 the death-rate from cancer in Leek was 7.2 to 10,000.

SELCIME REFORT, 5th DECEMBER, 1898.

In compliance with a request of the Sanitary Committee I have extracted from the Vital Statistical Record, kept in the office, the following particulars relating to vaccination, and the number of deaths from small-pox since 1856, and the average annual death-rate from Tubercular Disease within the Urban Sanitary District of Leek during the 47 years ending 1897.

Since the year 1856, we have had eleven outbreaks of small-pex within the District. In six of these outbreaks the infection was brought by tramps; in one outbreak the infection was brought from Iteland; in one outbreak the infection was brought from Wales; in one outbreak the infection was brought from Lancashire; in one outbreak the infection was brought from the Potteries; and in one case the source from whence the infection came could not be ascertained.

Of the 236 cases of small-pox that occured during the period under review, 26 were recorded as unvaccinated; of this number 23 died, and 3 recovered very much disfigured. With regard to the 210 cases of small-pox amongst the vaccinated persons, the disease assumed a modified form proportionate to the efficiency of vaccination. There is no record of a case of small-pox in any person who had feur distinct vaccination marks on the arm. With one exception, I have never known a vaccinated person to have confluent small-pox.

With the exception of hospital nurses, few persons have been more exposed to the infection of this loathsome disease than myself, and I can only attribute my escape from harm to the fact of having been four times vaccinated.

Average annual death-rate from Tubercular Disease to 1,000 living within the Urban Sanitary District of Leek during the 47 years ending 1897.

| Period of<br>Years,                                | · Phthisis.                     |                                      | Other Tubercular Diseases,      |                                      |
|--|---------------------------------|--------------------------------------|---------------------------------|--------------------------------------|
|  | Total number of Deaths.         | Average annual rate to 1,000 living. | of                              | Average annua rate to 1,000 living.  |
| 1851-60<br>1861-70<br>1871-80<br>1881-90<br>1891-7 | 491<br>409<br>281<br>284<br>168 | 5'00<br>3 81<br>1'41<br>1'36<br>1 64 | 640<br>494<br>375<br>355<br>287 | 6 64<br>4 59<br>3 99<br>2 03<br>1 96 |

During the last 27 years, vaccination has been practised to a large extent in Leek, and the above experience affords no evidence in favour of the contention that vaccination tends to increase the death-rate from tubercular disease.

# R. FARROW,

Sanitary Inspector.





